gather from the descriptions and remarks by Burmeister and Bates leucographa and rufina are the two extremes of one species, though Bates referred the northern specimens with black marks on thorax also to rufina, whether they have the clypeus emarginate or not.

NEW RHYNCHOPHORA.—II.

By Chas. Schaeffer, Brooklyn, N. Y.

Otidocephalus basalis, new species.

Head black, coarsely punctate, sparsely clothed with white recumbent setæ, foreate between the eyes, the latter separated by about half of their own width; beak short, robust, bistriate on each side, the discal strize reaching to apex, the lateral striæ shorter, disk with an elongate, shallow fovea near apex, the latter coarsely, but not densely punctate; antennæ reddish, club piceous, elongate-oval. Thorax black, convex, sides feebly arcuate; disk densely and coarsely punctate, a smooth, narrow median line distinct; surface with moderately abundant white and dark setæ, the latter less numerous than the white and all directed towards apex. Scutellum densely clothed with white pubescence. Elytra black, basal third red, more than twice as long as wide at base; humeri oblique; sides gradually widening towards apical third, thence arcuately narrowing to apex; disk with regular rows of large, deep and closely placed punctures; intervals feebly convex, each with an irregular row of smaller punctures; surface not densely clothed with recumbent, white, coarser setæ, sparsely intermixed with a few erect finer, darker setæ, the white setæ more abundant at apical third, than on the disk. Underside and legs black, clothed with recumbent white setæ; prothorax beneath, mesosternum and metasternum with radiate-pectinate hairs; femora with a small tooth, front tibiæ slightly sinuate within. Length 4.5 mm.

Huachuca Mts., Arizona.

In form and vestiture this species resembles closely *estriatus* Casey, which also occurs in the same region, but the well defined rows of punctures and the red basal space readily separate the two.

I have one specimen from Senator, Arizona, which differs from typical *estriatus* in having the intervals of elytra densely punctate and the white hairs more abundant. This gives the specimen the appearance of a different species, but there is otherwise no difference and the punctuation is variable in the specimens of *estriatus* before me.

Otidocephalus subglaber, new species.

Head black, nearly smooth, foveate between the eyes; the latter separated by about half of their own width; beak short, stout, smooth at middle, punctate at apex, at sides narrowiy striate, sides with a few, short white hairs, which are denser around the eyes; antennæ reddish, club piceous. Thorax rather strongly declivous in front and feebly impressed; sides feebly arcuate, towards base feebly constricted; disk very sparsely punctate with widely scattered punctures, each bearing a coarse white hair. Scutellum very small, densely clothed with white pubescence. Elytra black, slightly longer than twice as wide at base; humeri rounded; sides gradually widening towards apex; surface with regular rows of coarse, deep and closely placed punctures, the three inner rows impressed; intervals convex, with a row of widely placed smaller punctures, each bearing a single coarse, recumbent white, or erect finer, dark hair. Underside and legs black; clothed with finer white hairs; femora with a small tooth; front tibiæ narrow, slightly sinuate within. Length 3.5 mm.

Arizona (Dietz).

The very sparsely placed white coarse, and finer dark hairs of elytra, together with the impressed elytral striæ, the form of thorax and the interocular fovea readily distinguish this species.

Otidocephalus arizonicus, new species.

Head black, coarsely, densely punctate, black setæ erect, white setæ sparse, short, recumbent, more dense and longer between the eyes; the latter separated by about half their own width; beak about as long as the thorax, stout, bistriate on each side, striæ impressed and rather coarsely punctate, discal striæ extending to about basal half, lateral strize extending to apex, surface at apex irregularly punctate; antennæ reddish, club piceous, first joint of funiculus stout and as long as second and third together, club elongate oval. Thorax convex; sides arcuate, feebly constricted at base; disk closely and rather coarsely punctate, median smooth line not clearly defined; surface with numerous, erect, white and black setæ, the white denser at middle of apex; at base and sides a few radiate-pectinate white hairs. Scutellum densely covered with white pubescence. Elytra black, more than twice as long as wide; humeri broadly rounded; sides slightly widening to apical third; disk with rows of deeply impressed, coarse and closely placed punctures; intervals narrow with a row of irregularly placed finer punctures; surface with rather abundant white and black setæ, the former more numerous and slightly shorter than the black. Underside of body black, moderately clothed with erect white setæ; prosternum, mesosternum and sides of metasternum densely clothed with radiate-pectinate hairs. Legs black, densely-clothed with erect and semi-erect white setæ, intermixed with longer, black setæ; femora armed with a large triangular tooth, front tibiæ slightly sinuate within, the broadest part at about middle. Length 5.25 mm.

Huachuca Mts., Arizona.

In general form and size of the femoral tooth, this species is nearest *myrmex* Herbst, but the front tibiæ are longer with the broadest part medially, the thorax more closely and coarsely punctate and the

white setæ are abundant on thorax and elytra and distributed nearly evenly over the entire surface of the latter. In well preserved examples radiate-pectinate hairs are present at base and sides of prothorax and around the scutellum.

By description this species seems to be related to the Mexican hystricosus and setiger; from the former the larger femoral tooth separates it and from the latter the more abundant white setæ, which are described in setiger as coarse white hairs. The anterior tibiæ are also in arizonicus not strongly sinuate within.

Otidocephalus texanus, new species.

Head black, moderately coarsely and not densely punctate; foveate between the eyes; the latter separated by half of their own width; beak slightly shorter than the thorax dorsally, coarsely punctate-striate at sides, slightly curved, punctate at apex; antennæ reddish, second joint of funicle longer than third, third, fourth, fifth and sixth equal in size, club piceous, nearly as long as the preceding five joints. Thorax slightly convex; sides feebly arcuate; disk very sparsely punctate and with a few erect black setæ; scutellum densely clothed with white pubescence. Elytra elongate oval; humeri obliquely rounded; sides gradually widening to about apical third; surface with regular rows of moderate, not deeply impressed punctures; intervals wide, almost smooth, with a few dark setæ and near apex a few white setæ. Underside and legs black, with sparse white, fine hairs; sides of metastermum densely clothed with radiate-pectinate hairs; femora elongate, armed with broad triangular tooth; front tibiæ feebly sinuate within. Length 5 mm.

Brownsville, Texas.

The form of thorax and antennal club, the frontal fovea and feeble punctuation of elytra distinguish this species.

Otidocephalus coræ Champ.

Biol. Cent. Am., vol. IV, pt. 4, p. 262.

Specimens which agree fairly with the description of this species have been taken from oak in the Huachuca Mts., Arizona.

This species is closely allied to *scrobicollis*, but is generally a little larger, with much more abundant black and white, erect setæ on thorax and elytra and the series of large punctures on elytra are distinctly impressed. The black and white setæ in this species are even slightly more numerous than in *arizonicus*, which it resembles very closely in form and size, but *coræ* has only a small femoral tooth.

In the following synoptic table, as well as in the descriptions, I have used Mr. Champion's term "radiate-pectinate" for those peculiar white or pale hairs of certain species, which are three or four

branched. I think that this term conveys the peculiar structure of these hairs better than Dr. Horn's term "tufted."

A few of our species I have not seen; of these, the characters used in the table, are taken from the descriptions.

Otidocephalus poeyi Chev. is unknown to me. It is a Cuban insect, found in Florida and it is possible that cavirostris and poeyi are the same.

Otidocephalus perforatus Horn, is not included in the table. Major Casey erected for this species the genus Oopterinus, which was rejected by Dr. Horn, but accepted by Champion in the "Biologia," who added several species from Mexico and Guatemala. The species of this genus are principally distinguished by the ovate elytra, with the humeri obsolete, otherwise they do not seem to differ from Otidocephalus except that the species are apterous.

TABLE OF THE SPECIES OF OTIDOCEPHALUS. I. Femora dentate: beak in both sexes without large, dorsal excavation at middle. 2.

| Α. | Temora dentate, beak in both sexes without large, dorsal excavation at initidie. 2. |
|----|---|
| | Femora not dentate; beak in the male with a large and deep dorsal excavation |
| | near middle 24. |
| 2 | Elytra with recumbent or subrecumbent radiate-pectinate hairs and with erect |
| ۷, | · |
| | setæ |
| | The hairs on elytra simple, not radiate-pectinate, except in well preserved ex- |
| | amples of arizonicus, where a few radiate-pectinate hairs may be present |
| | near the scutellum and base of thorax |
| 3. | Pubescence of alternate elytral intervals sparse or absent |
| 9 | Pubescence of all the intervals uniform; in insignis the intervals are narrowly |
| | denuded on each side of the rows of punctures |
| | |
| 4. | The glabrous elytral intervals with a few widely separated punctures. |
| | vittatus Horn. |
| | The subglabrous intervals confusedly and somewhat densely punctured. |
| | nivosus Casey. |
| 5. | Erect setæ on elytra black; pubescence uniform in color, pale brownish-cinere- |
| | ous, dense on the elytral intervals, but denuded in a narrow space on each |
| | side of the series of punctures, producing a multivittate appearance. |
| | |
| | insignis Casey. |
| | Erect setæ on elytra white |
| 6. | Beak sparsely punctate at tip, obtusely carinate; pubescence of elytra paler |
| | along suture, at sides and middle of thoraxulkei Horn. |
| | Beak coarsely punctate, smooth at middle in front, not carinate; pubescence uni- |
| | coloroussparsus Horn. |
| 7. | Elytral series of punctures distinct, intervals very sparsely punctate9. |
| | Elytral series of punctures more or less confused by the irregular punctuation of |
| | |
| | the intervals 8. |

| 8. | Pubescence of elytra uniformly gray, recumbent, without darker setæ; form elongate |
|-----|--|
| | uniformis Champ. |
| | Pubescence of elytra white, recumbent, with darker, erect setæ intermixed. |
| | estriatus Casey. |
| 9. | Elytral intervals two, four, six and eight moderately densely pubescent with grey |
| | hairs, the others naked and sparsely biseriately punctate, each puncture with a |
| | hairalternatus Horn. |
| | All the elytral intervals uniformly pubescent |
| 10. | Median line of thorax distinctly carinate from base two thirds to apex; elytra |
| | clothed with greyish pubescence, the latter leaving some smooth spaces, inter- |
| | vals with semi-erect black setæ; femora with a small tooth; color dark bronze. |
| | carinicollis Horn. |
| | Median line of thorax not carinate; a narrow smooth median line is present in |
| | basalis and faintly indicated in some specimens of scrobicollis, but is not |
| | elevated into a carina |
| 11. | Elytra without erect setæ; color ferruginous, apical half or more of elytra black, |
| | very sparsely clothed with very narrow, recumbent, white, scale like hairs; |
| | head between the eyes with an elongate fovea; claws not toothed, but thick- |
| | ened towards base |
| | Elytra with erect or semi-erect setæ |
| 12 | Color of elytra uniformly black. |
| 12. | Elytra black, basal third or more bright red, the rows of punctures coarse and |
| | deep, intervals sparsely punctate with recumbent white, scale-like hairs, inter- |
| | mixed with sparser, erect, black setæ; femoral tooth smallbasalis n. sp. |
| | Elytra with recumbent, sparsely and very remotely placed narrow, scale-like, |
| 13. | white hairs, intermixed with a very few longer, erect, black setæ; coarsely |
| | punctate-striate, the first three striæ somewhat deeply impressed, intervals sub- |
| | convex and very sparsely and remotely punctate; head and thorax very sparsely |
| | punctate, almost smooth, the former between the eyes with a distinct, but not |
| | |
| | deeply impressed elongate fovea, femoral tooth smallsubglaber n. sp. Elytra with erect or partly semi-erect pale and dark pubescence |
| | |
| 14. | Femoral tooth large triangular |
| | Femoral tooth small, narrow |
| 15. | Punctuation on the disk of thorax coarse and dense, the punctures separated by |
| | at most their own diameter; black and white pubescence on head and thorax |
| | abundant, long and erect, the white slightly shorter and suberect on the disk. |
| | arizonicus n. sp. |
| | The punctures on thorax not densely placed, disk with some larger smooth spaces. |
| | 16. |
| 10. | Elytra with robust white, and finer longer, piceous setæ |
| | The white setæ almost entirely absent from the disk, visible at sides and apex of |
| | elytra and scarcely more robust than the black setæ |
| 17. | The white setæ on elytra recurved, striæ broadly, rather strongly impressed, |
| | coarsely, deeply, not very closely punctateegregius Casey. |
| | The white setæ on elytra erect; elytra with very feebly impressed series of rather |
| | coarse, deep, somewhat distant puncturesfloridanus Casey. |
| | |

| 18. Front tibiæ stout, distinctly sinuate within, the broadest part nearer the apex than middle; elytra with series of deeply impressed and closely placed punctures. |
|---|
| myrmex Herbst. |
| Front tibiæ rather slender, feebly sinuate within, the broadest part about middle |
| 19. Antennal club oval, as long as the three preceding joints together; thorax convex; punctures of elytral series deeply impressed, those of the intervals distinct, remote and slightly smaller than those of the regular series. |
| ruficornis Casey. |
| Antennal club elongate-oval, pointed at apex, nearly as long as the preceding |
| five joints together; punctures of elytral series feebly impressed, those of the |
| intervals extremely fine and almost absenttexanus n. sp. |
| 20. Eyes separated by much less than half of their own width |
| Eyes widely separated |
| 21. Head with a few, sparse punctures; between the eyes a large, elongate fovea; elytral setæ very few and short; front femora elongate; elytra strongly widening behind |
| Head closely and coarsely punctate, without fovea between the eyes; elytral setæ long and abundant, front femora clavate near apex, elytra feebly widening behind |
| 22. Elytral series of punctures distinctly impressedcoræ Champ. |
| Elytral series of punctures not impressed on the diskscrobicollis Boh. |
| 23. Elytra with a few moderately long, very sparsely placed white setæ on the alternate intervals, except at apex; the rows of punctures not impressed. |
| lævicollis Horn. |
| Elytra with long, sparsely placed, white setæ on all the intervals; the rows of punctures visibly impressedspeculator Casey. |
| 24. Very small, elytra distinctly punctate-striate, intervals flat, almost smooth, each interval with only a very few erect, white hairscavirostris Casey. |

NEW GENERA AND SPECIES OF NORTH AMERI-CAN CERAMBYCIDÆ.

By H. C. FALL,

PASADENA, CAL.

During the past few years isolated descriptions of a number of new species of longicorns have been drawn up by the writer, and it is thought best to bring these together in a short paper at this time.

It is believed that the species are all sufficiently distinct to warrant this procedure.